

UNITED STATES DEPARTMENT OF
COMMERCE
NEWS

WASHINGTON, D.C. 20230

PATENT AND
TRADEMARK
OFFICE

PAT 94-13

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22ND ANNUAL NATIONAL
INVENTORS EXPO '94 SCHEDULED

An automatic golf tee, a kinetic walking device, a portable golf game, a fold-away bed exercising device, a miniature analog joystick, and a communication system for the hard of hearing will be among the patented items on exhibit July 23 and 24 at the 22nd Annual National Inventors Expo '94 in the Andrew W. Mellon auditorium, Washington, D.C.

The expo will feature exhibits representing independent inventors as well as several small companies, the Intellectual Property Owners, the National Inventors Hall of Fame Foundation, and the U.S. Copyright Office of the Library of Congress.

Companies participating include Car Plow, Inc., the Coca-Cola Company, Feeder Land, Inc., Nada-Chair, Charles Sanders, and Valkyrie Scientific Proprietary, L.C.

An Inventors Conference co-sponsored by the Patent and Trademark Office and Intellectual Property Owners is scheduled for July 22 at the U.S. Department of Commerce Auditorium.

Expo '94 is open to the public July 23 from 11 a.m. to 5 p.m. and July 24 from 10 a.m. to 5 p.m. The Mellon auditorium is located on Constitution Ave. N.W. between 12th and 14th Streets. Admission is free.

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7/11/94

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PAT 94-14

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PATENT OFFICE PRESENTS INVENTOR AWARDS

Bruce A. Lehman, assistant secretary of commerce and commissioner of patents and trademarks, will present awards for outstanding inventions at the National Inventors Expo '94 awards ceremony July 23 at Andrew W. Mellon auditorium, Constitution Avenue between 12th and 14th Streets N.W., Washington.

The expo is co-sponsored by the U.S. Patent and Trademark Office and Intellectual Property Owners. Eighty exhibitors, including independent inventors and large, medium-sized and small companies, will display their latest patented devices. The awards will be \$1,000 U.S. Savings Bonds and plaques provided by the Intellectual Property Owners for the three best inventions.

Expo '94 is open to the public July 23 from 11:00 a.m. to 5:00 p.m. and July 24 from 10:00 a.m. to 5:00 p.m. Admission is free.

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7/18/94



Jeanie Low, 12, with her sister Elizabeth, 9, who fashioned her Happy Hand paperweights from her father's surgical gloves. Jeanie invented a bathroom stool and a bathtub alarm.

Caught in a Brainstorm

From Automatic Golf Tees to Bathtub Alarms, Inventors Expo Focuses on the Good Life

By Joe Donnelly
Washington Post Staff Writer

Victor "Not Torso" Toso works the crowd with the missionary zeal of a televangelist.

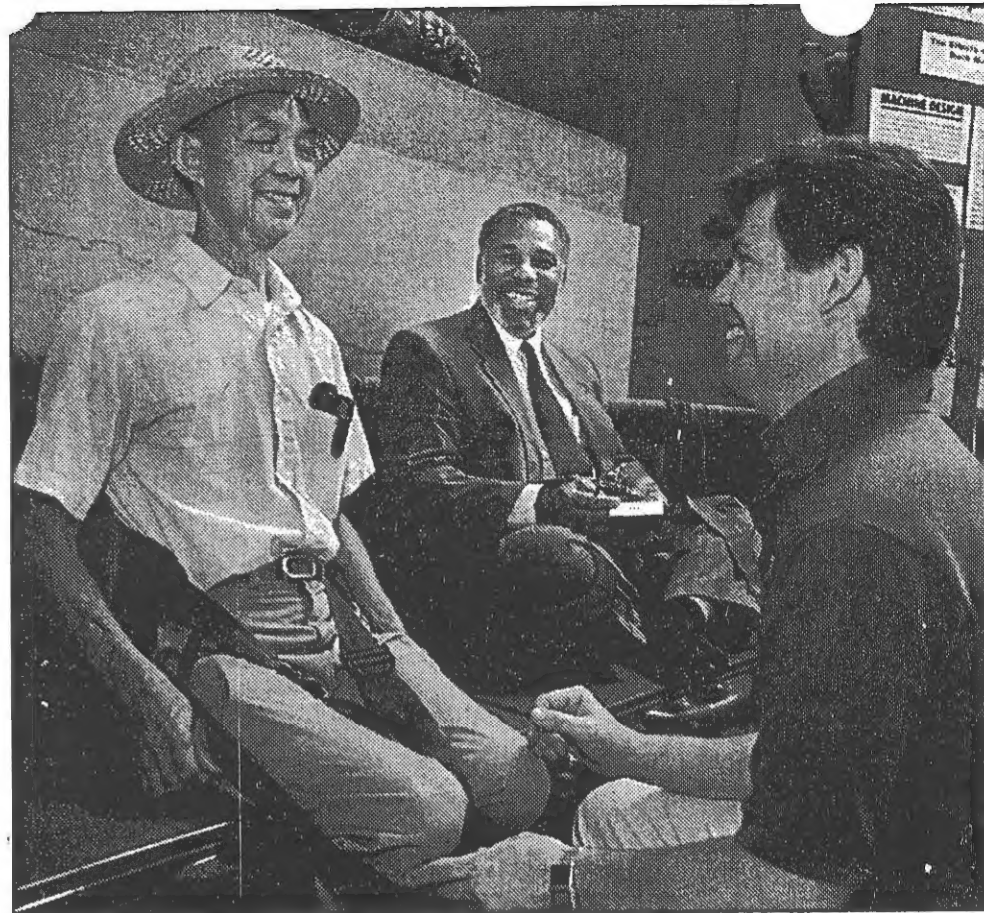
"Come on, sir—you can sit until you're ready to buy," he calls to a passerby who was eyeing with a mixture of fear and curiosity the handful of folks strapped into Toso's funky contraptions. "It only takes \$45 to get out.

"They use them for sleeping in the space shuttle, believe it or not," he goes on.

"We take virtual money."

"The pelvis is the pedestal for the spinal column."

Eva Vogt, a 23-year-old medical technician from Cologne, Germany, has obviously heard that pitch before. She approaches the spectacle with the low-eyelid look of a skeptic. But as soon as Toso straps her in, eyes widen and thumbs go up. "Ooh, it's good," she gushes. "It's very good, very good."



PHOTOS BY KEITH JENKINS—THE WASHINGTON POST

Minneapolis inventor Victor Toso, right, demonstrates his yoga-inspired Back-Up back support on Hewitt Lo, left, of Bethesda and Lee Williamson of Ohio.

The Back-Up spine support was one of the more sublime items on display over the weekend at the 22nd Annual National Inventors Expo '94, an exhibit of inventors and their patented inventions at the Andrew W. Mellon Auditorium at the Commerce Department. The expo showed off dozens of other brainstormers. Some were serious, such as the Valkyrie Vindicator Nozzle, which turns water into a more effective fire-extinguishing foam by pressurizing it and mixing it with nitrogen in the air. At the other ex-

treme was the Golf House, a portable miniature golf game that began as a beery lark.

If the expo is any indication, Toso's on his way to winning more converts than the latest Oprah diet. The Back-Up, a product by Nada ("means 'nothing' in Spanish," explains Toso) Chair, is a device that makes sitting for long periods less painful by supporting the spine with a cushion placed against the small of the back and secured by straps wrapped around the knees.

See INVENTORS, D2, Col. 1

Annual Inventors Expo

INVENTORS, From D1

What inspired the device?

"Yoga," says the 40-year-old Minneapolis inventor. "Here, put your heels up here and cross your feet." In a second Toso has you wrapped up like a Christmas gift. Nirvana. Actually, if the Back-Up came with food, entertainment and companionship you could likely stay there forever.

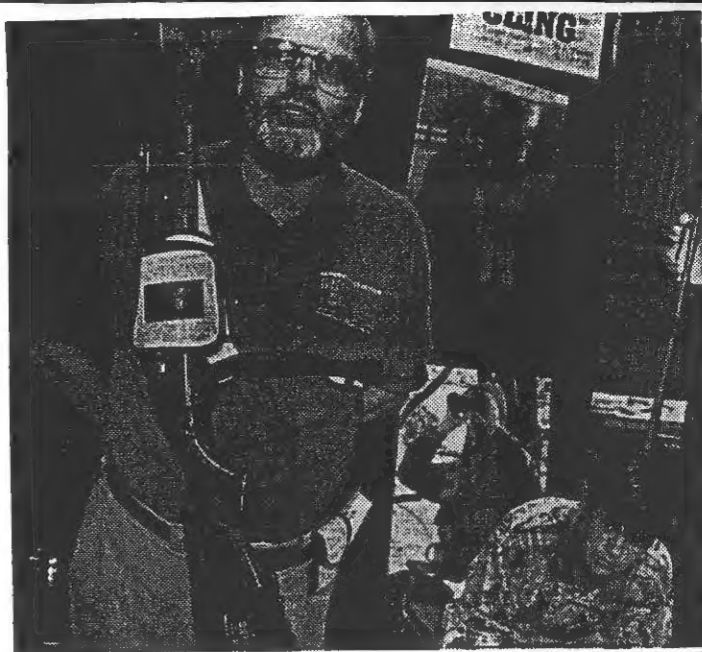
If nothing else, the exhibit made two things evident. The first is that while some countries' *Zeitgeists* may be tuned to corporate hegemony, others' to cultural autonomy, America's national will seems uniquely wired to making life easier and more fun. According to the Commerce Department, a record number of patent applications, 188,099, were filed last year. Some recent patents displayed at the expo included an automatic golf tee, a tool tray with wheels and an automatic litter box for small animals.

The other thing the expo made obvious is the fact that necessity is hardly the only mother of invention. In fact, for two preteen inventors from Houston, a Dagwood Bumsteadlike dad is the mother of invention. "I mess up and they follow behind me and clean up," said Richard Low, whose daughters Jeanie, 12, and Elizabeth, 9, had a large Saturday crowd marveling at their precocious creative capacities.

Jeanie invented the daddy-proof Kiddie Stool, to help tykes reach bathroom sinks, after her father wrecked hers. "I had a regular stool and it always broke when my dad slammed it into the door and it got lost and took up a lot of room," she said, explaining the process of invention in one breath. The Kiddie Stool folds against the sink's cabinet, where it is held fast by magnets. Then she invented a bathtub alarm, "because my dad would always let the bathtub overflow."

The girls caused quite a buzz throughout the expo. To the pilgrims who stopped by to pay homage, Elizabeth offered the Happy Hand, a paperweight she fashioned by pouring sand into plastic surgical gloves used by her optometrist father. "He kept wondering where all his gloves went, and we looked in the sandbox and there they were," said Jeanie, speaking for her shy younger sister. Eliza-

Jonathan Yardley is on vacation. His column will resume when he returns.



Harold Turner demonstrates his Gun Cling Model 2000, designed to reduce the risk of hunters shooting themselves by accident. His son Derek looks on.

beth continued to find inspiration in her father's work. When he kept breaking his own glasses on optometry equipment, she suggested replacing the regular glass in his tools with his prescription glass. Then, her father says, she invented an adjustable broom using a collapsible tent pole.

Jeanie was asked whether she considered herself a professional inventor at 12. "No, I'm a student," she said quietly. Then her face brightened as if she'd just realized the possibility of being both: "And an inventor."

Family was a source of inspiration elsewhere at the expo. Randy Schmidt, a 34-year-old electrician from Milwaukee who is not a musician, came up with Drum Strobes because he was tired of not being able to see his brother beat the skins when his band played. "How many times have you been to see a band that has a killer drummer and you can't see them?" asked his girlfriend and chief pitch-person, Bonnie Tarmann. "Now you can." The Drum Strobe flashes lights down on the drummer, triggered by the beating of the drums.

Victor Lazzaro, a young product designer who braved the throngs of video-cam wielding tourists and curiosity seekers to support an exhibiting friend, gave it a bang. As the drums crashed and the lights flashed from above, cameras turned in his direction. "I picked up the stick and I hit," said Lazzaro, his voice rising to the importance of the moment. "It was good. Good for me anyway." Lazzaro gave Drum Strobe good prospects "if it could be brought up to grand scale with a big band."

"Actually, we'd like to see this with Metallica," said Tarmann. "That's our goal."

Where family triggers the inventive mind in some cases, in others good old-fashioned laziness does the trick. Mark Fusco, 35, came up with the Autoplow ("Taking the World by

Storm") after shoveling snow from his large driveway one too many times. Fusco lives in Albany, N.Y., where he claims there were "17 snowstorms last year, six inches or more."

The Autoplow dawned on the snow-shoveling Fusco one winter's day while he looked forlornly at the idle horsepower in his Honda. He walked over to the car, looked under the fender and saw the answer to his prayers—steel rings intended for towing purposes. Fusco developed a lightweight polyethylene plow that hooks onto the rings and can be attached or removed with the pull of a pin. Now, his Honda does his shoveling for him.

The three necessary elements for spontaneous invention on college campuses—beer, pizza and good friends—were all present when Brendan Black came up with the Golf House. "I was up at Elmira College drinking with a few friends and someone had a putter," he explained. Black cut a hole through a Domino's pizza box. The object was to knock a golf ball through the hole into a beer can placed on the other side.

"We had a blast," said Black, while munching on a bag of honey-glazed roasted nuts. "I said, 'Guys, we could patent this.'" Black, 26, who said he was kicked out of Elmira not long after that enchanted evening, did. From inauspicious beginnings as a pizza box and a beer can, the Golf House has become a nine-hole portable golf course "that could be played anywhere. It could be played on a ship." The Golf House now comes in a finished-wood executive model and a brightly colored version for young folk. The inventor has yet to manufacture or market the product.

"The only thing keeping me back is a lack of marketing experience and procrastination," said Black. "I spent a lot of time trying it out. I spent many an hour playing this with friends."

Inventing isn't always such hard work.

Patents

Teresa Riordan

At Inventors Expo, everything from bed exercisers to a guard to keep baby out of the bathtub.

THE 22d annual National Inventors Expo over the weekend here featured 76 recent inventions ranging from a drummer-activated strobe light for rock bands to a modular space station. But most inventions at the Expo — sponsored by the United States Patent and Trademark Office as a way to showcase recently issued patents — were associated with more everyday activities.

Heavily trafficked by summer tourists weary of visiting nearby museums, the Expo included Otha O. Graham, a retired Methodist minister from Maysville, N.C., who demonstrated his system for exercising in bed (patent 5,207,628).

Mr. Graham's device clamps onto the side of a bed, near its foot. An L-

shaped bar attached to the clamp rises up and over, with the short segment of the bar about a foot above the bed and parallel to the foot. Two side-by-side cushioned rollers fit onto and rotate around the bar. Suspended several inches below the rollers is another bar which extends about two-thirds the length of the top bar.

Someone doing sit-ups, Mr. Graham said, would rest his ankles on the lower bar; the rollers on the upper bar would keep the legs from lifting. After the sit-ups are finished, Mr. Graham said, the exerciser can put the soles of his feet on the rollers and give himself a foot massage. The device also features a set of pulleys for exercising the arms.

Right next door to Mr. Graham's booth, Jeffrey B. Helmuth, an engineer from Shokan, N.Y., displayed brightly colored, helical fish lures (patent 5,245,781).

The lure's spiral shape, which recalls a strand of DNA or an apple peel shaving, causes it to spin as it is moved slowly through the water. The spinning motion, Mr. Helmuth said, is irresistible to fish.

"I happened to have some bait minnows in a bucket" where caught fish were being deposited, Mr. Helmuth said. "I noticed that when I stirred up the water the minnows would get dizzy and swim in a helical pattern. The big fish came right up from the bottom and ate them up."

Across the aisle from the fish lures, a sign proclaimed that Paul E. Kightlinger, founder of the fledgling Adjust Your Flush Inc., Tucson, Ariz., had put a price tag of \$15 million on his patented method for reducing the amount of water a toilet uses (patent 5,228,144).

"It gives you the option of easily converting your old toilet to a low flow instead of buying a new one," said Mr. Kightlinger, who added that his method was superior to the old-fashioned system of putting bricks in the water tank. Bricks displace water and therefore reduce a toilet's flushing pressure, he explained.

Mr. Kightlinger's invention consists of a cylinder several inches long that hooks onto the rim of the tank and dangles vertically inside the tank near the middle. Attached to the cylinder is a plastic tube which fits onto the toilet's "flapper," the stopper at the base of the tank which is attached mechanically to the toilet's flush han-

dle. The invention works by tricking the flapper into falling back down into place when the tank is only half empty rather than almost empty.

Sandra K. Moylan, a mother and former nurse from North Oxford, Mass., was displaying a very different type of invention for use in the bathroom: a way to keep toddlers from accidentally falling into the bathtub or being scalded by hot water (patent 5,249,315).

The guard is made of a vinyl-coated polyester netting stretched between two tension rods that span the length of the bathtub. To get into the tub, an adult can release the top tension rod and let the netting drape down the side of the tub, according to Ms. Moylan, who said that the rods could not be pulled down by a child.

Near the entrance of the exhibit, Joseph A. Maxwell Jr., an industrial designer from Burnsville, N.C., and his son, Stephen P. Maxwell, explained their concept for a new type of seating arrangement for airports (patent 5,083,838).

"Americans don't like to sit close to each other, so seats that are traditionally arranged in rows are only used to 59 percent capacity," Joseph Maxwell said. "With this system nobody faces exactly across from any one or next to anyone."

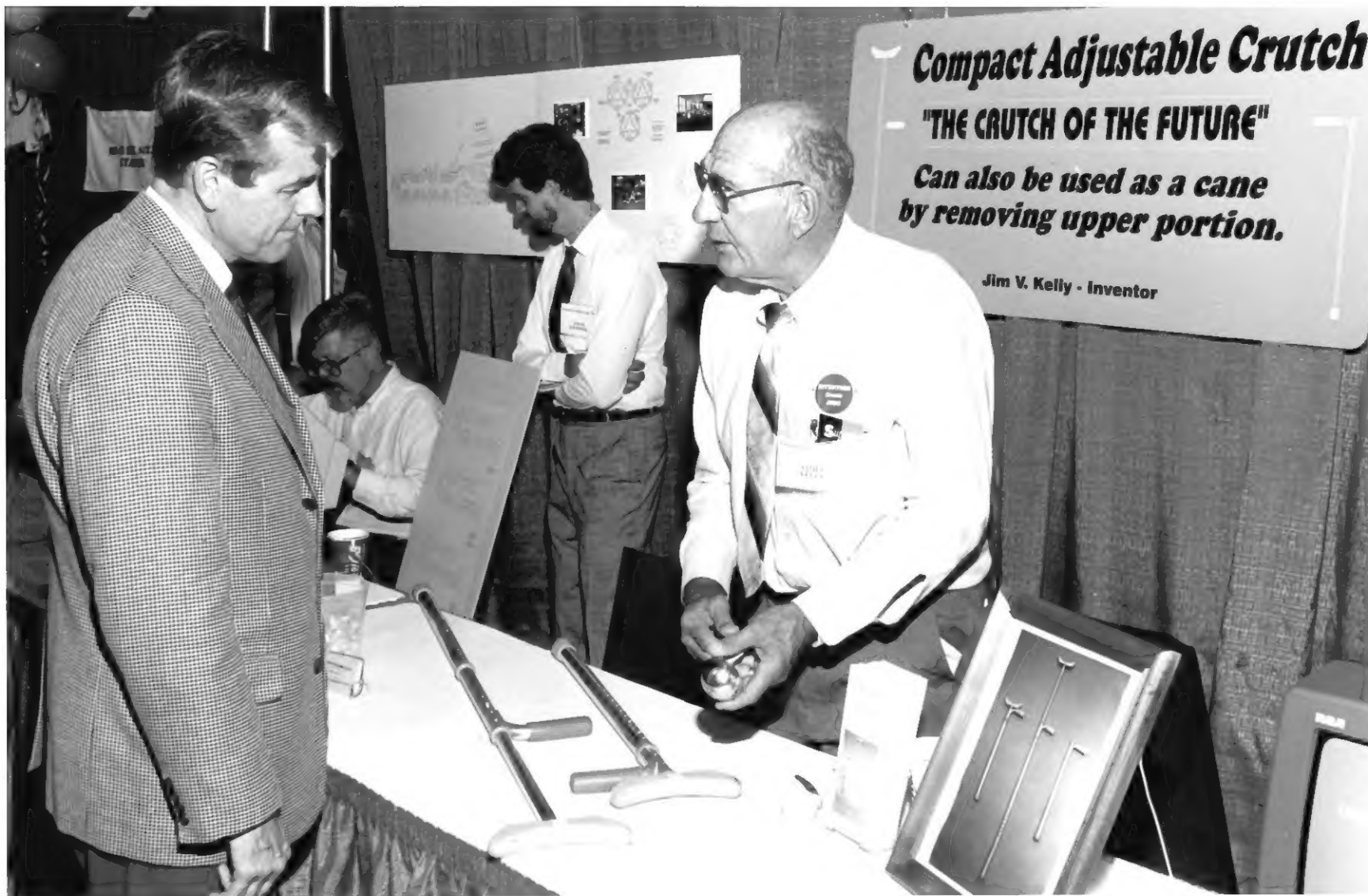
The seating arrangement features clusters of six seats arranged in a circular fashion. The seats face outward, with a small triangular table space between every seat. Although fewer cluster seats can be fitted into a given space than chairs in rows, the Maxwells said that studies suggest that travelers would use 90 percent of the seating space.

Toward the back of the exhibit space was another father-and-son team, Charles M. Sanders and Douglas E. Sanders, from King George, Va., who demonstrated their "lawn mower starting aid" (patent 5,253,540).

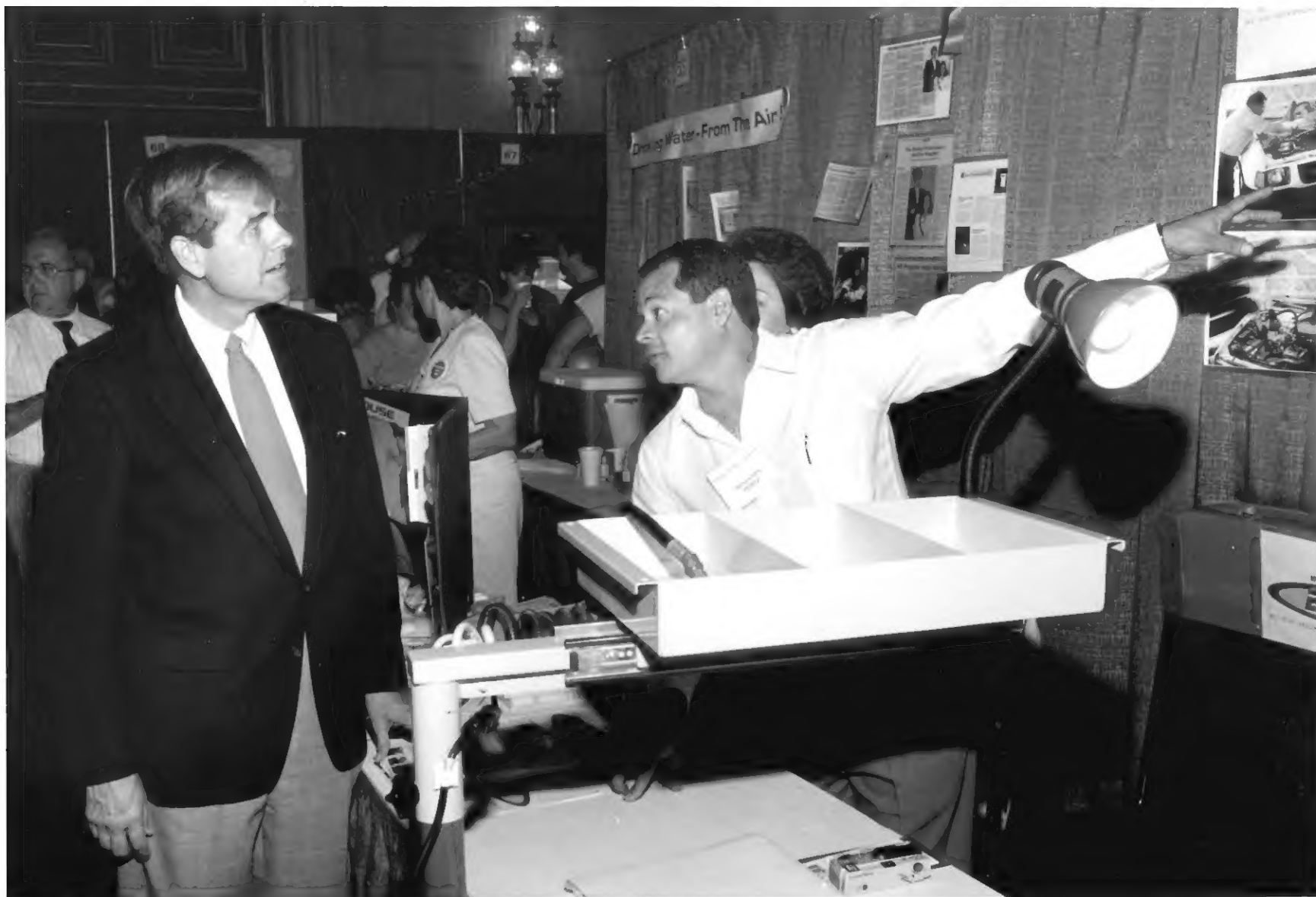
Their device, about 4 feet long at the base and about 5 feet high, attaches a cord to the starting pull of a conventional gas lawn mower. The cord in turn is threaded through a pulley system operated by a large lever at shoulder height. The mower is started by pulling down on the lever.

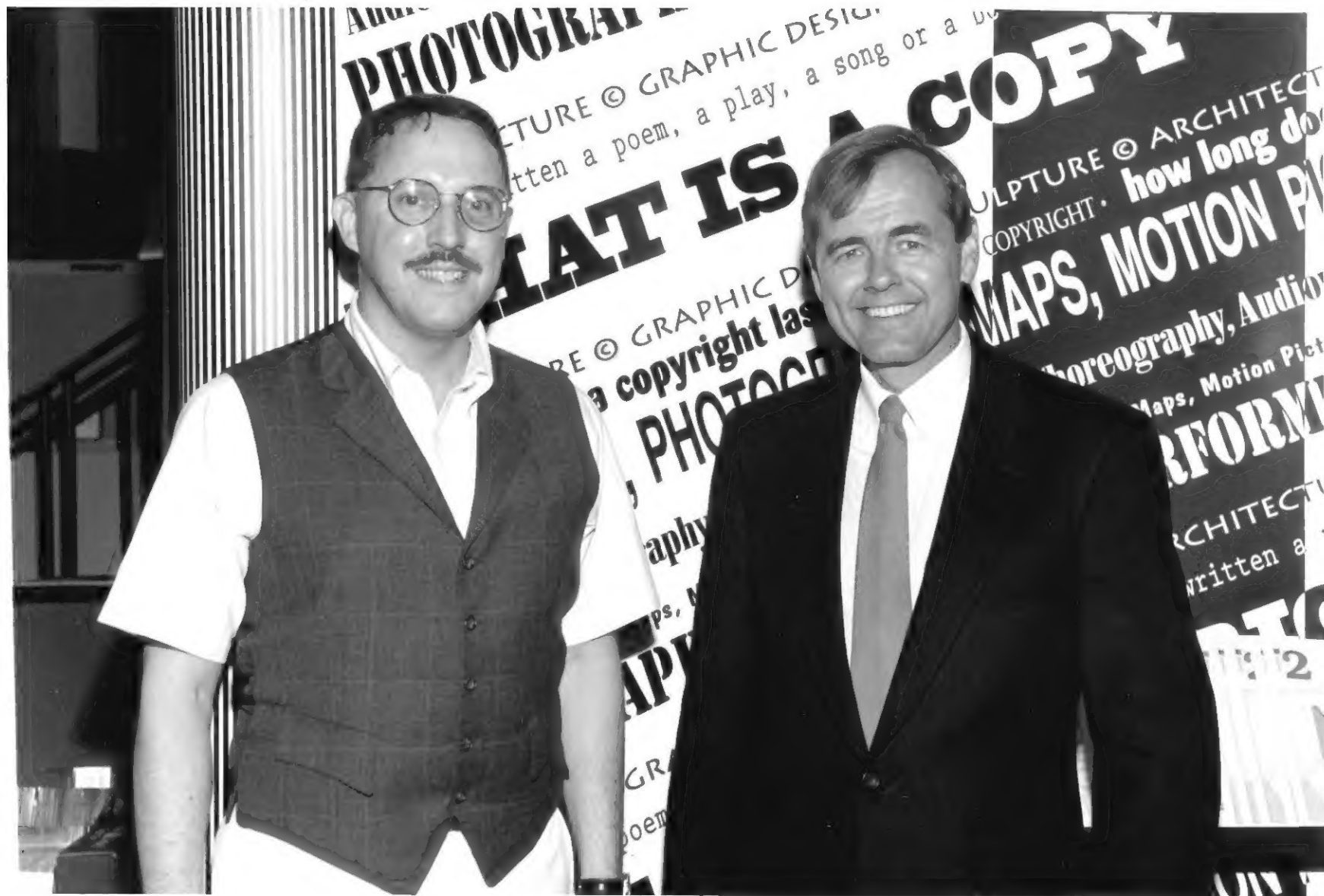
"I've got seven push lawn mowers, a lot of acres to mow and a bad back," Charles Sanders said. "I had to figure out a way to start the lawn mower from a standing position."

Patents are available by number for \$3 from the Patent and Trademark Office, Washington, D.C. 20231.











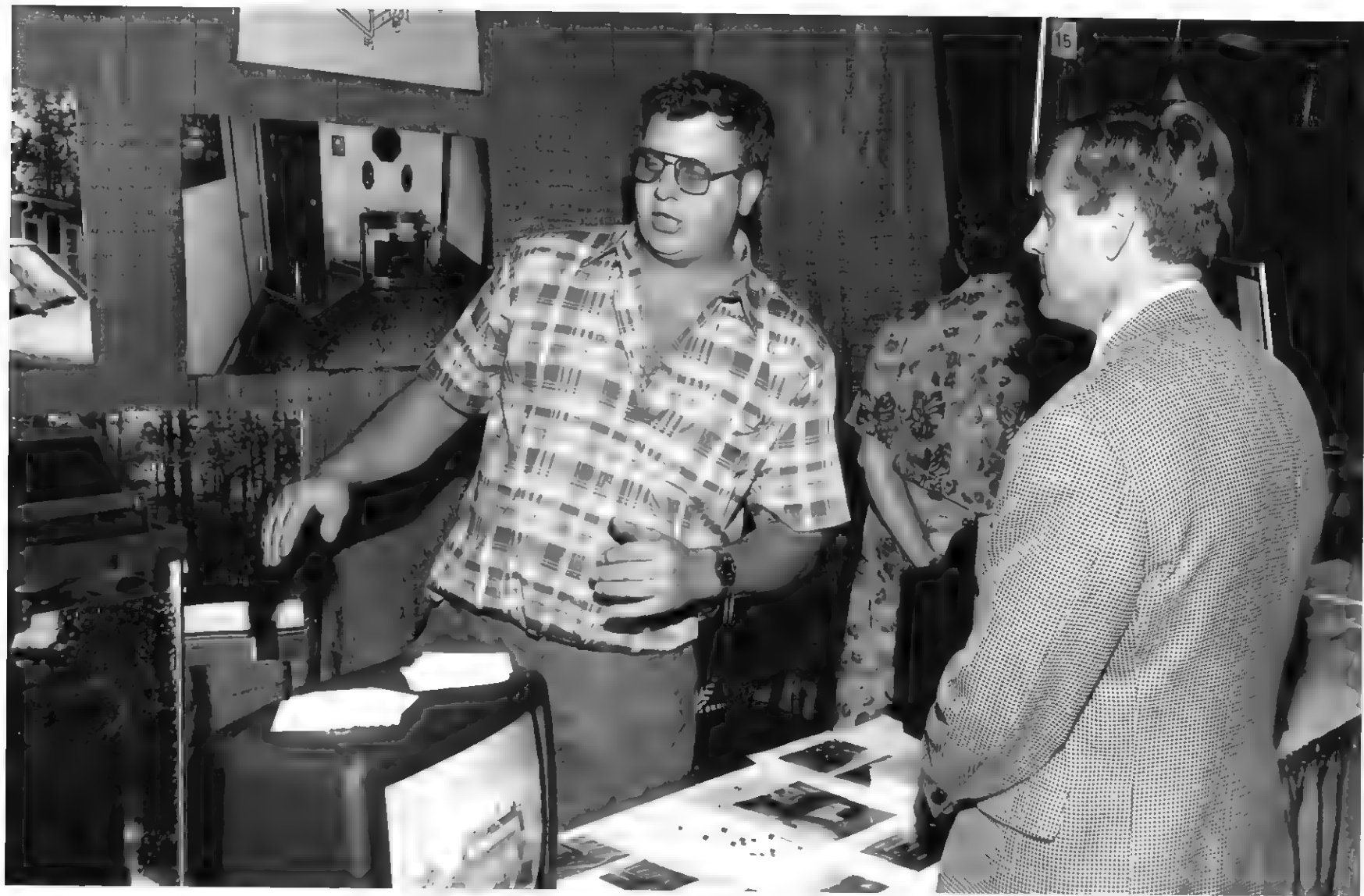


































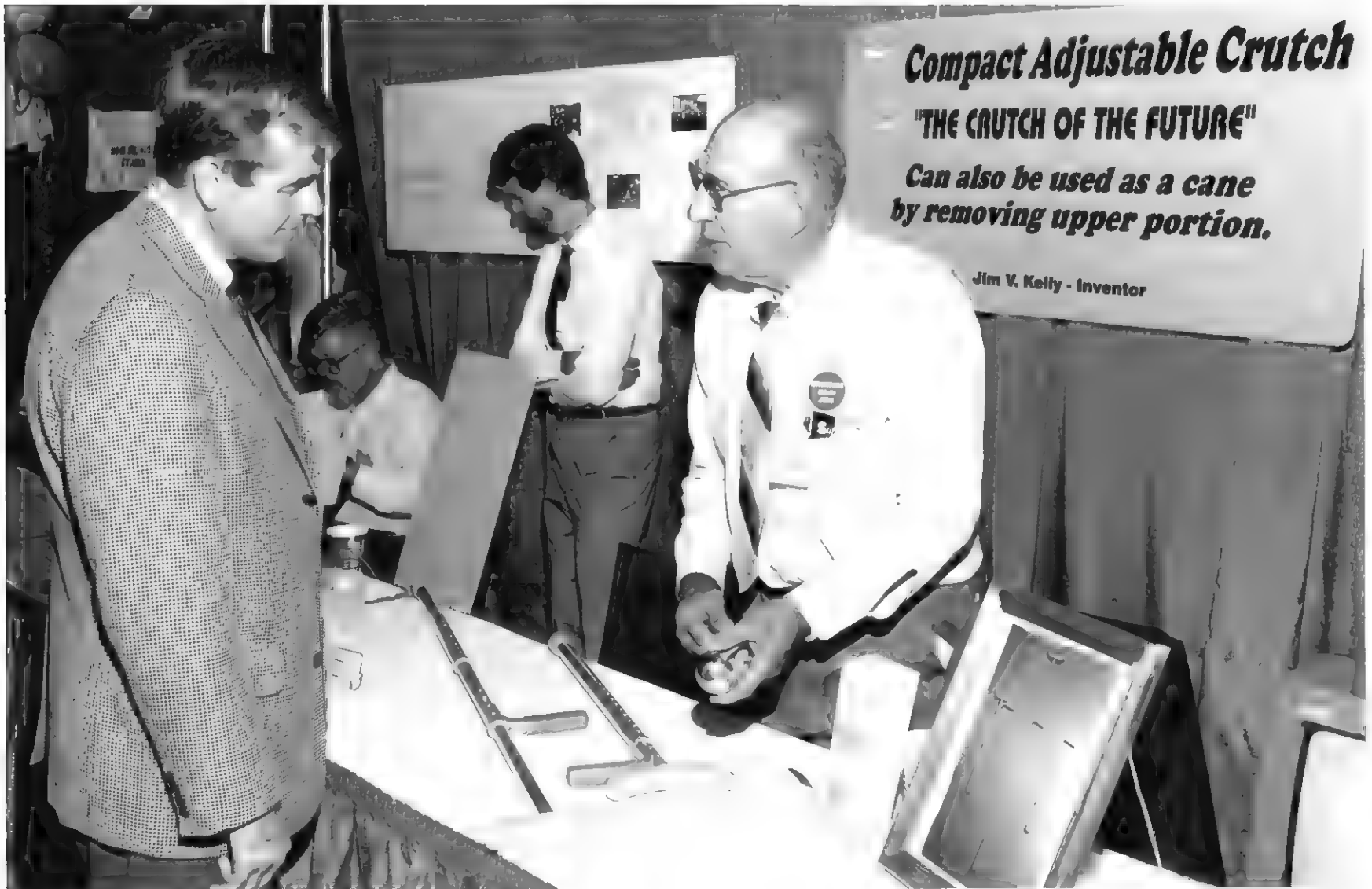


Compact Adjustable Crutch

"THE CRUTCH OF THE FUTURE"

***Can also be used as a cane
by removing upper portion.***

Jim V. Kelly - Inventor





THE CAT VALET SYSTEM

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(Sucrose)

Vegetable Oil
(A Triglyceride)

Chemical Structure

Chemical Structure

Chemical Structure

Chemical Structure

Why Does Olestra Do What It Does?







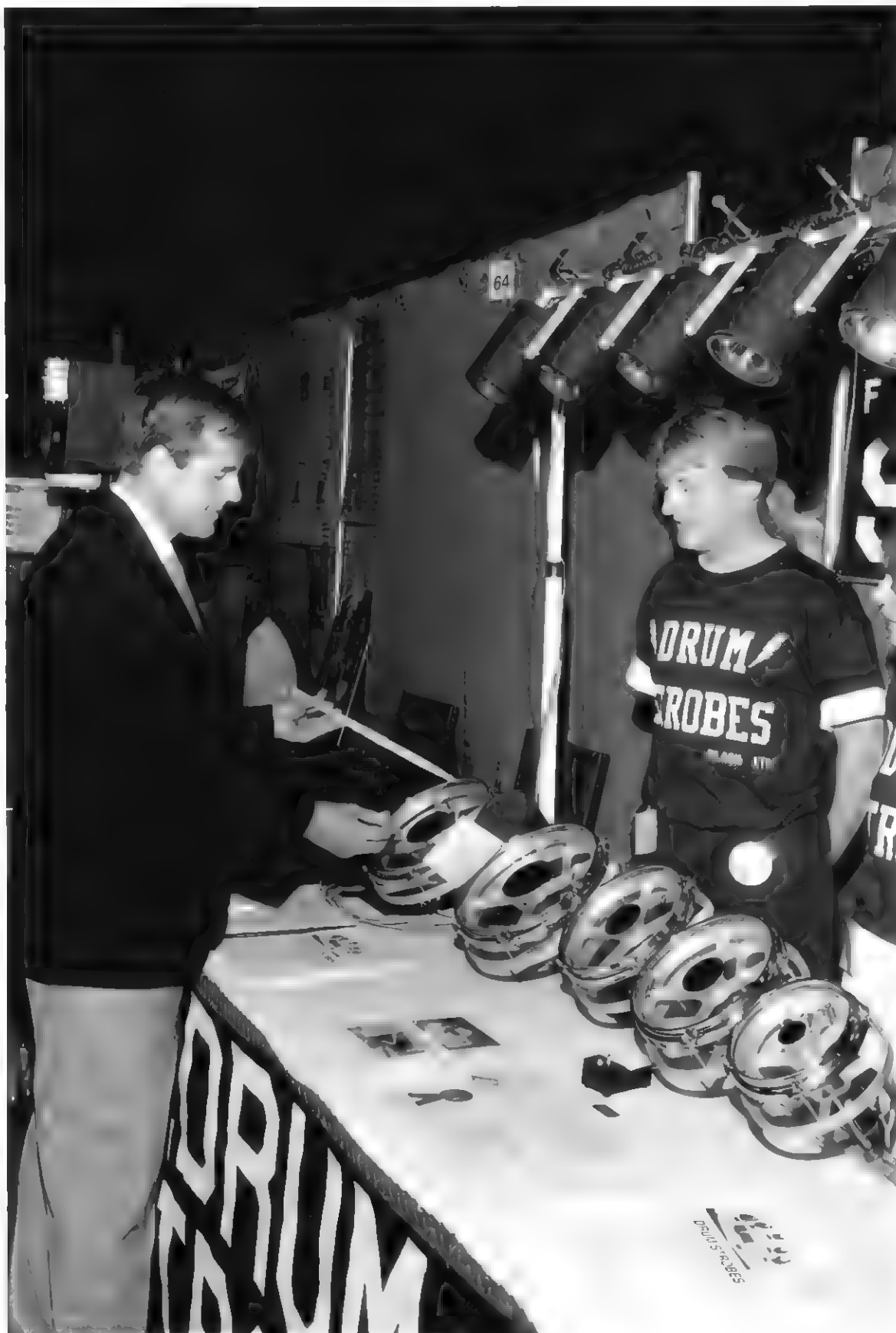


J-Turn Signal Control Electronics, Inc.

































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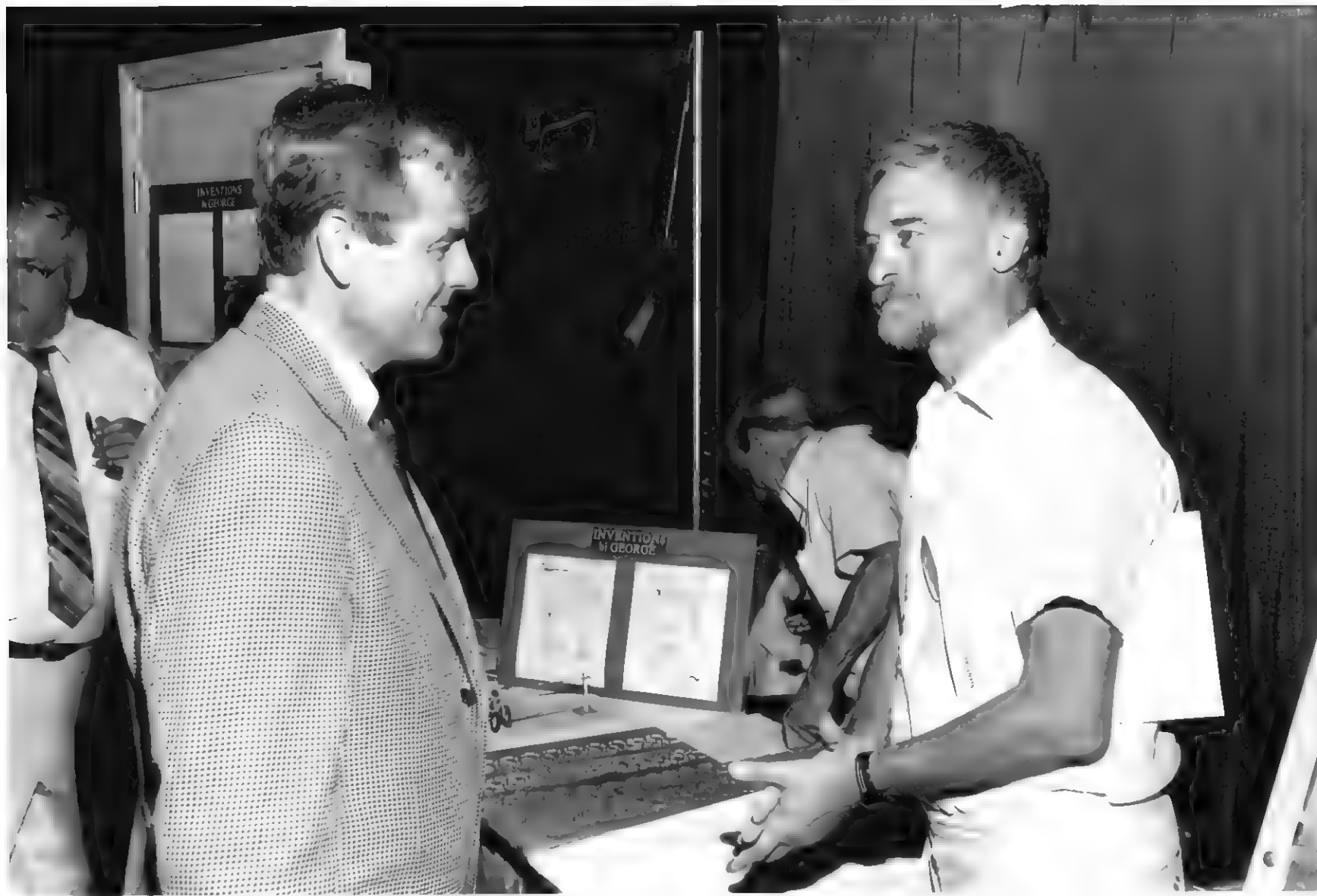




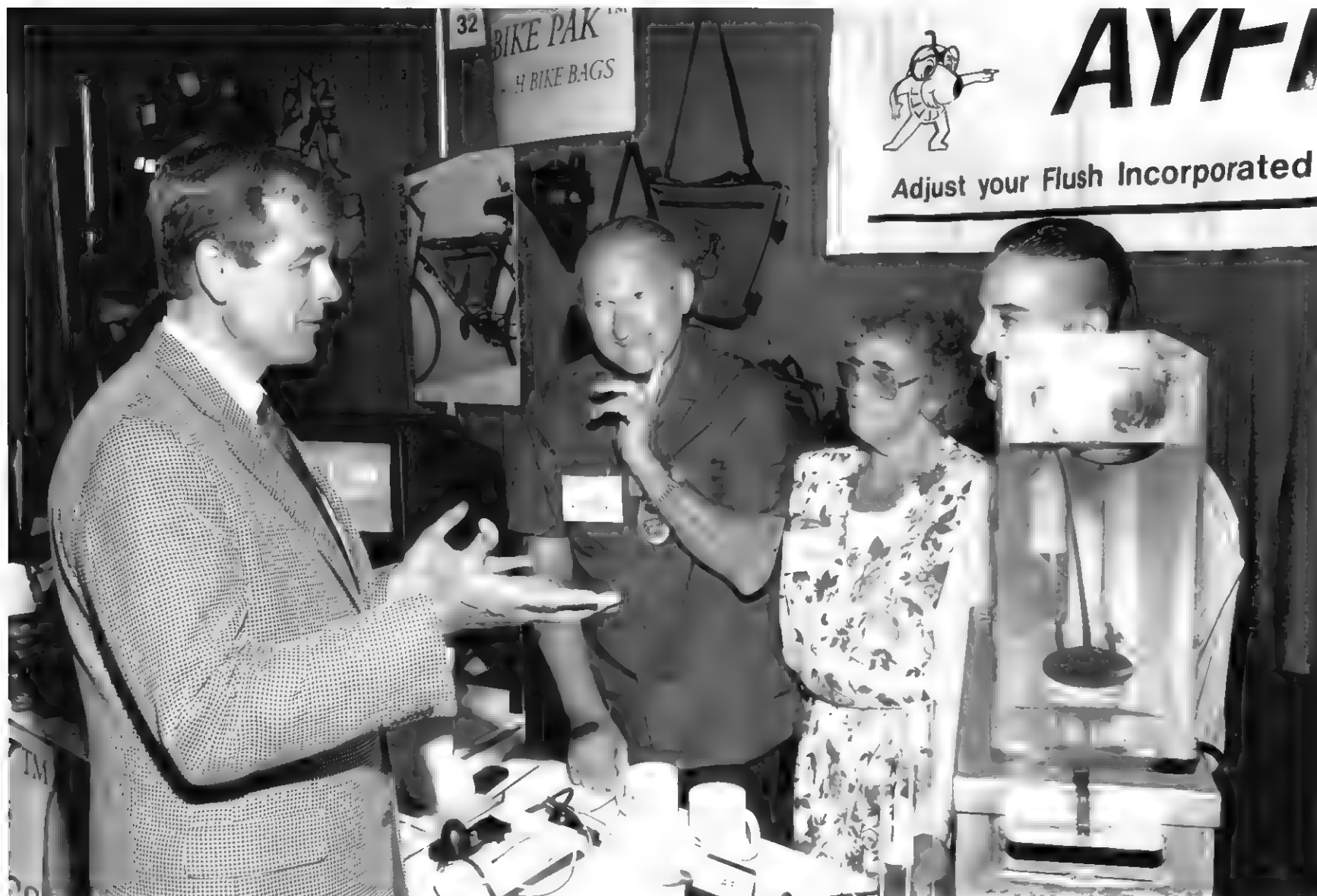












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